

Notice of Allowability

Application No.

09/891,235

Examiner

Juan A. Torres

Applicant(s)

HOSOMI, TAKAHIRO

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment - After Non-Final Rejection, filed 10/19/2007.
2. ☒ The allowed claim(s) is/are 5, 7, 8, 14-19, 23, 24 and 36-44 (renumbered 1-20).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Phillip J. Articola on 10/24/2007.

The application has been amended as follows:

a) in line 7 of claim 14 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

b) in line 7 of claim 15 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

c) in line 7 of claim 16 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

d) in line 7 of claim 17 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

e) in line 7 of claim 18 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

f) in line 7 of claim 19 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

g) in line 7 of claim 24 the recitation "controlling a" is changed to "controlling, by a control unit of the equipment, a"

Response to Arguments

Applicant's arguments, see Amendment - After Non-Final Rejection, filed 10/19/2007, with respect to claims 5, 7, 8, 14-19, 23 and 24 have been fully considered and are persuasive. The rejection of claims 5, 7, 8, 14-19, 23 and 24 has been withdrawn.

Allowable Subject Matter

Claims 5, 7, 8, 14-19, 23, 24 and 36-44 (renumbered 1-20) are allowed.

The following is an examiner's statement of reasons for allowance: claims 5, 7, 8, 14-19, 23, 24 and 36-44 (renumbered 1-20) are allowed because a comprehensive search of prior art failed to teach, either alone or in combination, a spread spectrum communication system comprising a receiving unit configured to receive a communication quality of a communication channel between an equipment and a counterpart equipment, a transmitting unit configured to transmit data to the counterpart equipment, and a control unit configured to control a transmission band width and a transmission power of a counterpart equipment depending upon said communication quality, wherein when said communication quality is not degraded below a predetermined level and the transmission power is not minimum, the transmission power is lowered, and wherein, said control unit comprises a reception control arithmetic portion configured to receive a reception signal error ratio and to determine and output a receiver gain a reception gain distribution control portion configured to receive the receiver gain output by the reception control arithmetic portion and to determine and output a reception amplifier control signal to an RF amplifier of the

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receiving unit and a reception clock control signal to a first clock generator of the receiving unit that is used to generate a first pseudo-noise signal, a transmission control arithmetic portion configured to receive transmission chip rate information and to determine and output a transmission gain, and a transmission gain distribution control portion configured to receive the transmission gain output by the transmission control arithmetic portion and to determine and output a transmission amplifier control signal to a power amplifying portion of the transmitting unit and a transmission clock control signal to a second clock generator of the transmitting unit that is used to generate a second pseudo-noise signal; a spread spectrum communication system comprising a receiving unit configured to receive a communication quality of a communication channel between an equipment and a counterpart equipment, a transmitting unit configured to transmit data to the counterpart equipment, and a control unit configured to control a transmission band width and a transmission power of a counterpart equipment depending upon said communication quality, wherein when said communication quality is not degraded below a predetermined level and the transmission power is minimum, and when a vacant band is present in a narrower band than a currently used frequency band, the frequency band is varied to narrower band, and wherein, said control unit comprises a reception control arithmetic portion configured to receive a reception signal error ratio and to determine and output a receiver gain, a reception gain distribution control portion configured to receive the receiver gain output by the reception control arithmetic portion and to determine and output a reception amplifier control signal to an RF amplifier of the receiving unit and a

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reception clock control signal to a first clock generator of the receiving unit that is used to generate a first pseudo-noise signal, a transmission control arithmetic portion configured to receive transmission chip rate information and to determine and output a transmission gain; and a transmission gain distribution control portion configured to receive the transmission gain output by the transmission control arithmetic portion and to determine and output a transmission amplifier control signal to a power amplifying portion of the transmitting unit and a transmission clock control signal to a second clock generator of the transmitting unit that is used to generate a second pseudo-noise signal; a spread spectrum communication system comprising a receiving unit configured to receive a communication quality of a communication channel between an equipment and a counterpart equipment, a transmitting unit configured to transmit data to the counterpart equipment, and a control unit configured to control a transmission band width and a transmission power of a counterpart equipment depending upon said communication quality, wherein said communication quality is classified into three levels depending upon degree, when said communication quality is in medium level, wherein said control unit varies the transmission band width in preference to varying the transmission power, and wherein, said control unit comprises a reception control arithmetic portion configured to receive a reception signal error ratio and to determine and output a receiver gain, a reception gain distribution control portion configured to receive the receiver gain output by the reception control arithmetic portion and to determine and output a reception amplifier control signal to an RF amplifier of the receiving unit and a reception clock control signal to a first clock generator of the

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receiving unit that is used to generate a first pseudo-noise signal, a transmission control arithmetic portion configured to receive transmission chip rate information and to determine and output a transmission gain, and a transmission gain distribution control portion configured to receive the transmission gain output bY the transmission control arithmetic portion and to determine and output a transmission amplifier control signal to a power amplifying portion of the transmitting unit and a transmission clock control signal to a second clock generator of the transmitting unit that is used to generate a second pseudo-noise signal; and a spread spectrum communication system comprising a receiving unit configured to receive a communication quality of a communication channel between an equipment and a counterpart equipment, a transmitting unit configured to transmit data to the counterpart equipment, and a control unit configured to control a transmission band width and a transmission power of a counterpart equipment depending upon said communication quality, wherein when said communication quality is degraded below a predetermined level, said control unit varies the transmission band width in preference to varying the transmission power, and wherein said control unit comprises a reception control arithmetic portion configured to receive a reception signal error ratio and to determine and output a receiver gain a reception gain distribution control portion configured to receive the receiver gain output by the reception control arithmetic portion and to determine and output a reception amplifier control signal to an RF amplifier of the receiving unit and a reception clock control signal to a first clock generator of the receiving unit that is used to generate a first pseudo-noise signal, a transmission control arithmetic portion configured to receive

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transmission chip rate information and to determine and output a transmission gain, and a transmission gain distribution control portion configured to receive the transmission gain output by the transmission control arithmetic portion and to determine and output a transmission amplifier control signal to a power amplifying portion of the transmitting unit and a transmission clock control signal to a second clock generator of the transmitting unit that is used to generate a second pseudo-noise signal, as the applicant has claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eto (US 6252898 B1) discloses a spread spectrum communication system measuring a parameter indicative of a C/N value of a received signal at one station during a communication between stations remote from each other in accordance with a spread spectrum communications scheme, and changing the data rate of a signal to be transmitted from another station when the C/N value changes by a predetermined value or more.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is 571-272-3119. The examiner can normally be reached on 8-6 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
10-24-2007


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER